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APPLICATION NO.	FI	LING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	ATTORNEY DOCKET NO. CONFIRMATION NO.		
10/655,682	(09/04/2003	Scott William Dunham	P382C3	P382C3 6497		
8791	7590	08/18/2005		EXAM	EXAMINER		
BLAKELY	SOKOL	OFF TAYLOR &	GHYKA, ALI	GHYKA, ALEXANDER G			
12400 WILS	HIRE BO	ULEVARD					
SEVENTH F	LOOR		ART UNIT	PAPER NUMBER			
LOS ANGEL	ES. CA	90025-1030		2812			

DATE MAILED: 08/18/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

	Application No.	Applicant(s)	
	10/655,682	DUNHAM, SCOTT WILLIAM	
Office Action Summary	Examiner	Art Unit	
	Alexander G. Ghyka	2812	
The MAILING DATE of this communication app Period for Reply	ears on the cover sheet with the c	orrespondence addi	ress
A SHORTENED STATUTORY PERIOD FOR REPLY THE MAILING DATE OF THIS COMMUNICATION. - Extensions of time may be available under the provisions of 37 CFR 1.13 after SIX (6) MONTHS from the mailing date of this communication. - If the period for reply specified above is less than thirty (30) days, a reply - If NO period for reply is specified above, the maximum statutory period w - Failure to reply within the set or extended period for reply will, by statute, Any reply received by the Office later than three months after the mailing earned patent term adjustment. See 37 CFR 1.704(b).	i6(a). In no event, however, may a reply be time within the statutory minimum of thirty (30) day- ill apply and will expire SIX (6) MONTHS from cause the application to become ABANDONE	nely filed s will be considered timely. the mailing date of this com D (35 U.S.C. § 133).	munication.
Status			
Responsive to communication(s) filed on This action is FINAL . 2b)⊠ This Since this application is in condition for allowan closed in accordance with the practice under E.	action is non-final. ice except for formal matters, pro		nerits is
Disposition of Claims			
4) Claim(s) 19-28 is/are pending in the application 4a) Of the above claim(s) is/are withdraw 5) □ Claim(s) is/are allowed. 6) □ Claim(s) 19-28 is/are rejected. 7) □ Claim(s) is/are objected to. 8) □ Claim(s) are subject to restriction and/or Application Papers 9) □ The specification is objected to by the Examiner 10) □ The drawing(s) filed on 04 September 2003 is/a Applicant may not request that any objection to the d Replacement drawing sheet(s) including the correction 11) □ The oath or declaration is objected to by the Examiner	rn from consideration. election requirement. c. re: a)⊠ accepted or b)□ object drawing(s) be held in abeyance. See on is required if the drawing(s) is obj	e 37 CFR 1.85(a). ected to. See 37 CFR	ner.
Priority under 35 U.S.C. § 119			
12) Acknowledgment is made of a claim for foreign a) All b) Some * c) None of: 1. Certified copies of the priority documents 2. Certified copies of the priority documents 3. Copies of the certified copies of the priori application from the International Bureau * See the attached detailed Office action for a list of	have been received. have been received in Application ty documents have been received (PCT Rule 17.2(a)).	on No ed in this National St	tage
Attachment(s) Notice of References Cited (PTO-892) Notice of Draftsperson's Patent Drawing Review (PTO-948) Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) Paper No(s)/Mail Date	4) Interview Summary Paper No(s)/Mail Da 5) Notice of Informal Pa	te	52)

Application/Control Number: 10/655,682

Art Unit: 2812

DETAILED ACTION

Applicants' terminal disclaimers overcome the double patenting rejections of the previous Office action. The following new rejections are made. Accordingly, this Office action is NON-Final. Claims 19-28 are under consideration.

Claim Rejections - 35 USC § 112

The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

Claims 25-28 recite the limitation "the lower diffusion stage" in line 6. There is insufficient antecedent basis for this limitation in the claim.

Claim Rejections - 35 USC § 102

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless -

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

Claims 19 and 25 are rejected under 35 U.S.C. 102(b) as being anticipated by Fukunaga et al (US 5,950,925).

The present claims generally require a process gas diffuser comprising a first diffusion stage including a plurality of radial channels, a second diffusion stage comprising a plurality of diffusion holes into each gas zone of the reactor chamber, and

Art Unit: 2812

a gas diffusion stage located between the first and second diffusion stages, the gas diffusion stage configured to include gas transition passages in fluid communication with a corresponding radial channel of the plurality of radial channels of the first diffusion stage with the plurality of diffusion holes of the second diffusion stage, and a method of use.

Fukununga et al disclose a reactant gas injector head for CVD process an ejector head body having a back plate and a nozzle plate for defining a gas mixing space therebetween, said nozzle plate having numerous ejection nozzles (the claimed first diffusion stage); a gas supply communicating with the ejector head body through a center region of the back plate so as to separately introduce at least two gaseous substances into a mixing space (the claimed gas diffusion stage) and gas distribution passages formed between the back plate and the nozzle plate to guide at least two types of gases from the gas supply separately toward peripheral regions of the gas mixing space (the claimed second diffusion stage). See column 7, lines 10 to column 8, line 20 and Figures 1-6. Therefore, Fukunaga et al anticipate Claims 19 and 25 of the presently claimed invention.

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the

Application/Control Number: 10/655,682

Art Unit: 2812

invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

Claims 20-24 and 26-28 are rejected under 35 U.S.C. 103(a) as being unpatentable over Fukunaga (US 5,950,925).

The afore mentioned claims require varying the quantity of the passages, the number of diffusion holes and their diameter.

Fukunaga disclose the shape of the gas distribution passages can be modified to suit various applications. See column 2, lines 10-15. Moreover the placement of the passages can be modified to achieve good distribution of the gases. See column 2, lines 30-55.

It would have been obvious for one of ordinary skill in the art to vary the quantity of passages, the number of diffusion holes and their diameter, as the disclosure of Fukunaga that the design and placement of the passages can be modified encompasses the presently claimed limitations. Where, the general conditions of a claim are disclosed in the prior art, it is not inventive to discover the optimum or workable ranges by routine experimentation. See *Allen v. Coe*, 57 USPQ 136.

Moreover, discovery of an optimum value of a result effective variable in a known process is ordinarily within the skill of the art. See *In re Aller*, 105 USPQ 233 (1955). The variation of the passages and their distribution is therefore *prima facie* obvious.

Conclusion

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Alexander G. Ghyka whose telephone number is (571)

Application/Control Number: 10/655,682 Page 5

Art Unit: 2812

272-1669. The examiner can normally be reached on Monday through Thursday during general business hours.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Michael Lebentritt can be reached on (571) 272-1873. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

AGG August 17, 2005

ALEXANDER GHYKA PRIMARY EXAMINER